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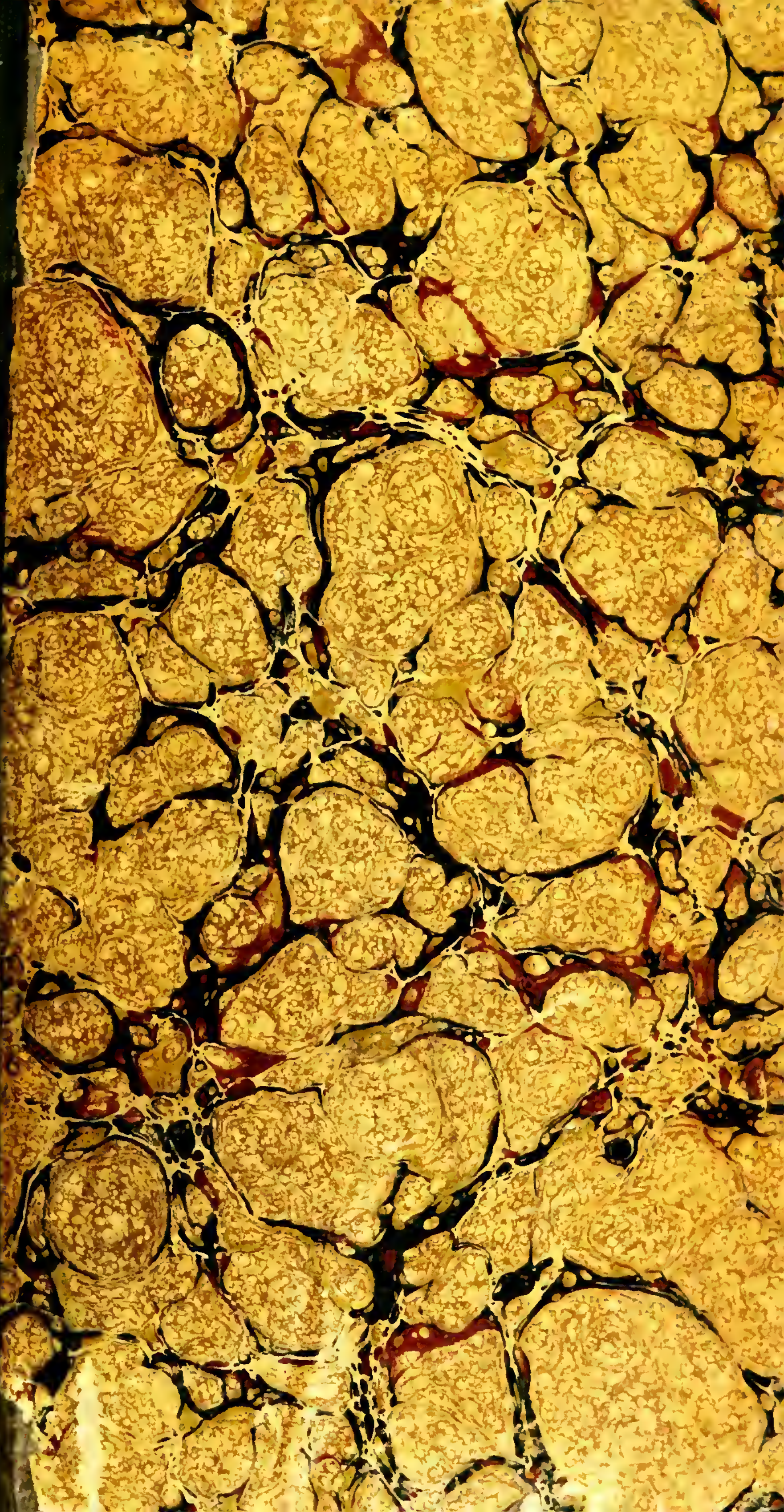

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TYPOGRAPHICAL AND AUTHORS' CHANGES; INDEX

EIGHTH INTERNATIONAL

CONGRESS OF APPLIED CHEMISTRY

Washington and New York

September 4 to 13, 1912

VOL. XXIX.

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VOLUME XXIX

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EXPLANATORY NOTE

Authors' names are in heavy-faced type; heavy-faced numerals indicate volumes, light-faced numerals indicate pages; bracketed matter shows the location of discussion, if any.

NOTE

Early in May, 1912, definite arrangements between the Eighth International Congress of Applied Chemistry and the Rumford Press of Concord, N. H., U. S. A., were completed in which it was provided that all copy received by the Rumford Press on or before July 16, 1912, should be set up in type, proof-read and made up into 4,000 sets of 24 volumes or a total of 96,000 volumes and such part of those 4,000 sets as might be called for by August 15, 1912, delivered at Columbia University Gymnasium before 6 p. m., August 31, 1912. The Rumford Press fully lived up to that agreement within the 47 elapsed days thus allowed. A total of 5,143 pages of matter was set up in type during the course of that work.

The Rumford Press further agreed to give the subsequent printed matter of this Congress the right of way over anything and everything else in its office provided copy was completely delivered to it by the close of September 26, 1912, and to have all such matter printed and bound into the necessary number of volumes by November 15, 1912, or 50 elapsed days later.

It became perfectly clear on September 10, 1912, that the coöperation on the part of lecturers, participants in discussions and contributing authors absolutely needed to complete delivery of copy by September 26, 1912, would not be at all forthcoming and therefore the right-of-way arrangement was cancelled by mutual consent on that date in order to avoid unnecessary financial loss. That this cancellation was justified is shown by the fact that not until March 11, 1913, or six months behind time, was all the copy of what is now volumes 25, 26, 27, and 28 brought together in spite of repeated and most urgent letters from the Secretary asking for that material. As matters now stand not a few of those whose formal remarks or other communication should be embodied in these volumes are not therein represented. Had these volumes been sent to press September 26, 1912, with only the material then available these volumes would have been very meagre and some of the most important papers and communications now in them would not then have appeared.

The Congress had placed December 31, 1912, as its delivery date counting with absolute confidence upon the coöperation which has been so generally withheld from it as to cause a delay in delivery of more than three months beyond the date originally set.

The copy for volumes 25, 26, 27 and 28 was tentatively closed January 25, 1913, and because the Rumford Press was then under contract with others to perform certain duties the Congress matter had to take its place in line and get along as well as circumstances would permit.

For this delay the delinquent members of this Congress are alone to blame; the Congress and the Rumford Press were ready and perfectly able, as demonstrated in the case of volumes 1–24, to perform their part but they were not given any chance so to do because the copy and the prompt coöperation they absolutely needed had been almost completely withheld from them.

The fact that some of the members of this Congress will be unable to get copies of volumes 1–24 is due to their own lethargy entirely. Announcement was made in March, 1911, and in almost every one of the succeeding Congress publications, as well as in a number of the various technical journals, that memberships completed after July 1, 1912, could not be guaranteed the full reports. The contracts for paper and printing had to be made late in April, 1912, when the total membership was only 1,200 and that after five months' active campaigning for members; a minimum of 4,000 sets was then ordered with the provision that this number could be increased up to 7,500 any time prior to July 16, 1912, but not thereafter; renewed efforts to obtain members were made but at the end of 10 weeks, when the time limit for extension expired, the membership had risen to only 1,800. Therefore, with a surplus of almost 2,000 sets it was not regarded proper to increase the financial burden by adding to the number of sets then contracted for and the order was left at 4,000 sets. A sufficient number of copies of volumes 25–29 has been printed so as to provide copies of these for all members.

Copies of volumes 1–24 will be distributed to the belated members until the supply is exhausted; they will be sent out to them in the chronological order of the date of receipt of their membership fee by the Treasurer and not otherwise.

The foregoing is given this publicity in the hope that it may be helpful to succeeding Congresses.

BERNHARD C. HESSE,
Secretary.

90 William Street,
NEW YORK, March 31, 1913.

TYPOGRAPHICAL AND AUTHORS' CHANGES

In the following are given such changes as authors have indicated they desired to have made. These changes are shown in two classes: (I) typographical changes and (II) authors' changes. The first includes only those changes at points where the printer did not follow copy; the second includes only those changes made by the author in his original manuscript, but only after having seen the article in print; at all of these latter points the print was accurate to copy.

Special opportunity and occasion were offered the 382 authors in attendance at the Congress to correct or change the prints of their papers. At that time 560 papers or more than 70% of all papers finally presented to the Congress were in print and were distributed to 1322 of the 1883 members who registered. Special copies of all such papers were available at a separate booth in Columbia University Gymnasium on Monday, Tuesday, Wednesday and Thursday, September 9, 10, 11 and 12 for the specific purpose of having changes marked thereon and of being subsequently published in a so called "Errata-sheet." These facilities and this purpose were made known to all in attendance at page 9 of the Program of all the meetings of the Congress which program was distributed on the morning of Friday, September 6, together with the information that all changes received up to October 1, 1912, would certainly be published. The following contains all changes received up to March 19, 1913.

It is only reasonable to suppose that all authors present read their published articles and since the authors of all the papers then published have long ago received their reprints it is further reasonable to suppose that they have read their papers and have communicated any changes they desired to have made.

Therefore, it is concluded so far as volumes 1 to 24 are concerned that they are free from any substantial errors except those noted below. Members are therefore requested to take special note of these changes.

I. TYPOGRAPHICAL CHANGES

Vol. I—Analytical Chemistry

Page 137, line 5 from the bottom of the text "1.05" should read "0.05."

P. 189, line 21 for "flask" read "blank."

P. 198, line 11 insert a comma after "disadvantage."

P. 228, line 2 under "Table I." "0.0006" should read "0.006."

Vol. III—Metallurgy and Mining

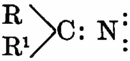
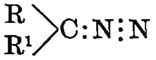
P. 34, line 14 for "s in a lead smeltings" read "as in lead smelting."

P. 37, last line of text insert a period after "itself" and before "The."

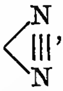
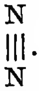
P. 38, line 6 for "affects" read "effects."

P. 38, line 18 insert "to" after "subject" and before "the."

Vol. VI—Organic Chemistry

P. 108, for " $\begin{matrix}R\\R^1\end{matrix}\!>\!C:N\overset{\cdot}{\underset{\cdot}{:}}N$" read " $\begin{matrix}R\\R^1\end{matrix}\!>\!C:N\vdots N$" for "$R.N:N\overset{\cdot}{\underset{\vdots}{:}}N$" read "$R.N:N\vdots N$."

P. 109, for "$C_6H_5NCl\overset{\cdot}{\underset{\cdot}{:}}N$" read "$C_6H_5NCl\vdots N$."

P. 113, for "" read " $N\equiv N$."

P. 117, in formula VI erase the line connecting Me and CO.

Vol. X—Fuels and Asphalt

P. 293, last line of the table, second column "85% at 100°" should read "85% at 200°."

Vol. XI—Fats, Fatty Oils and Soaps

P. 17, line 2 "Beolio" should read "Boelio."

Vol. XIX—Biochemistry including Pharmacology

P. 55, line 4 of the text insert a comma between "process" and "which."

P. 57, last line "create" should read "creates."

P. 58, line 2 from the bottom insert "a" between "carotene" and "hydrocarbon."

P. 58, last line erase the comma after "40" and insert it after "formula."

P. 64, line 4 from the bottom for "dextrine" read "dextrins."

Vol. XX—Photochemistry

P. 149, line 17 of the text for "capacity" read "opacity."

Vol. XXI—Electrochemistry

P. 190, line 16 for "dells" read "cells."

Vol. XXII—Physical Chemistry

P. 88, last line of the text last word insert a hyphen after "sat."

P. 101, line 18 for "paper" read "vapor."

P. 126, line 8 "10°" should read "–10°."

P. 139, line 17 of the text "In" should read "ln."

P. 142, in footnote 1 "preceding" should read "following."

P. 143, in footnote 1 "preceding" should read "following."

P. 144, line 1 "than" should read "then."

P. 154, line 3 "Po" should read "P_o."

P. 154, column 6 the heading should read "$\frac{N}{N+1}$" instead of "$\frac{1}{N+1}$."

P. 155, for "Zn^2" read "Zn_2."

P. 245, "Wisbe" should read "Wiebe."

P. 263, lines 3 and 4 of the text for "vorgesch-lagen" read "vorge-schlagen."

P. 263, line 7 of the text "aund" should read "und."

P. 263, line 23 read "Mueller" for "Muller."

P. 263, lines 28 and 29 for "unzureich-end" read "unzureichend."

P. 267, line 7 for "zeight" read "zeigt."

P. 267, footnote 3 line 2 for "orde" read "oder."

P. 268, lines 8 and 9 for Uebersch-wemmung" read "Ueberschwemmung."

P. 269, line 3 for "meits" read "meist."

P. 270, line 7 "Niederschaelge" should read "Niederschlaege."

P. 271, line 17 insert a comma after "Solche."

P. 271, line 32 "Verhlten" should read "Verhalten."

P. 272, line 9 "gasformigem" should read "gasfoermigem."

P. 272, line 10 "0.1 U" should read "0.1μ."

P. 272, line 23 "0,001U" should read "0.001μ."

P. 272, line 27 "Hyrdosole" should read "Hydrosole."

P. 272, line 34 "C)" should read "(C)."

P. 273, line 14 "voliegender" should read "vorliegender."

II. AUTHOR'S CHANGES

Vol. I—Analytical Chemistry

P. 120. See page 12 vol. XXVII lines 1–3 of the text of the discussion.

Page 122 line 12 "one part water" should read "three parts water."

P. 138, line 3 for "qualitative" read "quantitative."

P. 139, table IV first column third line of figures insert "(0.005 mg.)."

P. 147, line 5 from bottom "0.060" should read "0.062."

P. 148, line 12 insert "mg. Al" after "0.05."

P. 188, footnote 3 for "*8*,637" read "*21*,1079."

P. 190, transfer the reference mark "formaldehyde" line 1 to "hydrolized" line 18.

P. 194, line 27 erase the period after "sulfite" and in lieu thereof insert a comma.

P. 199, line 8 insert "p. brom-phenyl" before "hydrazine."

P. 199, line 14 for "B_2" read "Br."

P. 199, line 15, for "B_2" read "Br."

P. 200, line 5 from the bottom of the text for "Ekenstein" read "Epenstein."

P. 200, line for the bottom of the text erase the final "n" in "Blanksman."

P. 203, transfer "99.06" of the last column from the formaldehyde line to the Vanillin line.

P. 223, line 9 for "0.02 c.c." read "0.2 c.c."

P. 229, line 13 from the bottom for "Series 4 and 5" read "Series 3 and 4."

P. 231, line 7 for "Series 3 and 4" read "Series 4 and 5."

P. 415 line 17 from the bottom insert:

The correction of hydrogen-scale thermometers to the absolute thermodynamic scale is a problem which concerns the theoretical physicist rather than the analytical chemist.

Vol. III—Metallurgy and Mining

P. 31, line 12 of the text erase "here."

P. 39, line 20 for "items" read "item."

P. 39, line 28 after "ton" add "of product."

Vol. V—Silicate Industries

P. 123, line 26 "hopper bottoms" should read "hoppers."

P. 123, lines 24 and 25 and 26 and 27 for "Kilowatt hours" read "Kilowatts."

Vol. VI—Organic Chemistry

P. 70, line 11 from the bottom "three" should read "two."

P. 70, line 7 from the bottom "1000" should read "4000."

P. 71, line 13, "120" should read "420."

Vol. X—Fuels and Asphalt

P. 9, line 8 from the bottom after "their" insert "solubility and."

P. 10 line 2 for "Residuums" read "Fusible residuums."

Vol. XI—Fats, Fatty Oils and Soaps

P. 20, line 8 from the bottom "samples" should read "sample."

P. 26, Draw a line above and below the word "Time" and extending across the entire table, in the fourth line of that table.

Vol. XII—Paints, Drying Oils and Varnishes

P. 143, line 2 of the text erase "in den letzten Jahren eine grosse Umwandlung erfahren" and in lieu thereof insert
"sich in den letzten Jahren ausserordentlich geändert."

Vol. XIII—Starch, Cellulose and Paper

P. 109, line 16, erase ".4%" and in lieu thereof insert ".1%".

P. 109, line 17, erase ".4%" and in lieu thereof insert ".15%".

Vol. XIV—Fermentation

P. 216, at the end of §VI insert:

"While the peptic activity is more rapid in digesting coagulable albumen at 40°C and even at 50°C than at 30°C, the residual peptic strength after complete digestion of coagulable albumen is greater at 30°C than at 40°C or 50°C, indicating that the higher temperatures have a weakening or destructive effect on peptic activity as judged by the amount of coagulable albumen digested. This does not take into consideration the possible expenditure of peptic strength through further degradation of non-coagulable albumen to be elucidated by further investigation.

"The conservation of this peptic strength, i.e., the peptic strength over and above the amount expended for the digestion of the coagulable albumen of the malt extract, becomes of prime importance when applying the principle to the digestion of coagulable albumen contained in beer, by adding, under proper precautions, malt extract prepared by mashing malt with water acidulated with lactic acid."

P. 226 and 227, erase "§(f)" and in lieu thereof insert:

"f) Held at 40°C for 4 hours the amount of coagulable albumen remains the same, which, combined with gelatine test (see below) indicates that this temperature is less favorable to the activity of the enzym than the temperature of 30°C. Coagulable albumen...=0.08%."

Vol. XVI—Hygiene

P. 17, top of page for "Graham Rogers" read "Graham-Rogers."

P. 19, line 6 from bottom for "absorption bulb" read "air burette."

P. 19, line 9 from bottom insert "an" between "and" and "Orsat."

P. 21, line 6 from bottom read "oxidizing" for "reducing."

P. 23, line 15 read "one thousandth" for "one-hundredth."

P. 23, line 16 read "one thousandth" for "one-hundredth."

Vol. XIX—Biochemistry including Pharmacology

P. 56, line 8 from bottom "Ingenhoues" should read "Ingenhouss."

P. 59, line 11 from the bottom insert a comma after "carbohydrates."

P. 61, line 14 insert "the" between "of" and "transformation."

P. 61, line 8 from the bottom insert a comma between "sulphates" and "the."

P. 63, line 18 insert a comma between "shells" and "often."

P. 64, line 17 insert a comma between "water" and "like."

P. 65, line 5 for "iodine" read "iodin."

Vol. XXI—Electrochemistry

P. 35, line 9 of the text insert "fused" after "the" and before "alumina."

P. 36, line 3 "conductivity" should read "expansion."

P. 190, line 19 after "(P.T.O.)" insert the following which the author contrary to all rules or custom put on the back of the page.

The following Table gives the number of ampères passing through the Wilderman Cell at different volts at 70°C.

Volts	3.93	4.32	4.72	5.11	5.6	5.89	6.28	7.06	7.85
Ampères	2000	3000	4000	5000	6000	7000	8000	10000	12000

After the cells have worked for a whole year with the Acheson Graphite electrodes with current densities of 30 ampères per decimetre square of mercury the increase in energy required taken per annum was about 2 to 2½%, and with better graphitised anodes still better results should be obtained.

Vol. XXII—Physical Chemistry

P. 88, line 8 after "chemists" insert the reference number "2" and insert the same reference number before "(Souberain x x" in the fine print at the foot of the page.

P. 112, line 11 from the bottom insert commas after "carbonate" and after "alcohol."

P. 116, line 9 insert a comma after "carbonate."

P. 139, line 17 of the text C^1_2 should read C_2.

P. 142, line 8 from the bottom erase "X."

P. 143, second formula from the bottom for "dlup" read "dlnp."

P. 150, line 14 insert "diameter" between "internal" and "of."

P. 212, under column headed "1910" erase the figures opposite: Danemark, Espagne, Hongrie, Norvege, Republique Argentine, Roumanie, Suisse.

P. 212, under column headed "1911" erase the figures opposite: Belgique, Hongrie, Republique Argentine, Russie.

P. 212, under the column headed "1912" erase the figures opposite: Empire Britannique, Espagne, Etats-Unis, Hollande, Norvege, Russie, Suisse.

P. 248, line 6 from the bottom "erklekliche" should read "erkleckliche."

P. 263, line 3 of the text for "Hydrolsole" read "Hydrosole."

P. 263, line 20 insert "von Mueller" between "den" and "als."

P. 263, line 21 insert "von ihm" between "den" and "als."

P. 264, line 3 erase the period between "aber" and "um" and in lieu thereof insert a comma.

P. 264, line 5 for "Flussigheit" read "Fluessigkeit."

P. 264, line 10 for "Teilchensahl" read "Teilchenzahl."

P. 264, line 10 insert a comma between "Grund" and "warum."

P. 265, line 7 insert "zu" between "es" and "viele."

P. 268, line 8 for "underchfuehrbar" read "undurchfuehrbar."

P. 265, line 13 for "zahl" read "Zahl."

P. 265, line 25 insert a comma after "Eigenschaft."

P. 265, line 26 insert a comma after "gelatinieren."

P. 265, line 8 from the bottom insert "von" between "Mengen" and "Schwermetallsalze."

P. 265, line 8 from the bottom for "Schwermetallsalze" read "Schwermetallsalzen."

P. 265, line 5 from the bottom erase the word "Gelatinierbar" and in lieu thereof insert "'gelatinierbar.'"

P. 266, line 5 insert a comma after "etc."

P. 266, line 10 erase "Koll." and in lieu thereof insert "koll."

P. 266, line 13 insert a hyphen between "Schutz" and "kolloid-freie."

P. 266, in "Tabelle II" insert "von Noyes" after "Klasse I" and "Klasse II."

P. 266, line 2 after Tabelle II insert a hyphen between "Suspensions" and "und."

P. 266, in footnote 3, line 2 "wörter" should read "Woerter."

P. 267, line 1 for "auserordentlich" read "Ausserordentlich."

P. 267, line 2 for "Kolloider" read "kolloider."

P. 267, line 15 close the quotation marks after "Emulsoiden."

P. 267, line 23 for "undurchfuhrbar" read "undurchfuehrbar."

P. 267, line 28 for "ursprunglichen" read "urspruenglichen."

P. 267, footnote 3 line 5 for "ihne zukommende" read "ihnen zukommenden."

P. 268, line 16 for "Eigem-" read "Eigen-."

P. 268, line 5 from the bottom of the text read "Salzen" for "Salze."

P. 268, last line and first line of p. 269 "koagulieren" should read "koagulie-ren."

P. 269, line 14 for "unaghaengig" read "unabhaengig."

P. 270, line 1 insert a hyphen after "Wolfram."

P. 270, line 6 for "gennant" read "genannt."

P. 270, line 10 and 11 for "Zustandsander-ungen" read "Zustandsaende-rungen."

P. 270, line 17 "von einander" should read "voneinander."

P. 270, line 18 "mienem" should read "meinem."

P. 270, lines 19 and 20 "zue-nachst" should read "zu-naechst."

P. 271, line 8 "Dispersionmittel" should read "Dispersionsmittel."

P. 271, line 11 erase the colon before "Feinere" and in lieu thereof insert a period.

P. 271, line 16 "Bestandigkeitsbedingungen" should read "Bestaendigkeitsbedingungen."

P. 271, line 18 erase the comma after "sind" and in lieu thereof insert a colon.

P. 271, line 18 erase the colon after "(R. Lorenz)" and in lieu thereof insert a semicolon.

P. 271, line 19 erase the comma after "sind" and in lieu thereof insert a colon.

P. 271, line 20 erase the colon after "Sinne" and in lieu thereof insert a semicolon.

P. 271, line 21 erase the comma after "sind" and in lieu thereof insert a colon.

P. 271, line 29 "zeiht" should read "zieht."

P. 273, line 11 erase the comma after "III."

P. 273, line 19 "ausgeseichten" should read "ausgezeichneten."

Vol. XXIV—Political Economy and Conservation of Natural Resources

P. 175, line 3 from the bottom erase "30."

Pp. 176 to 178, change 31 to 30, 32 to 31, 33 to 32, 34 to 33, 35 to 34, 36 to 35, 37 to 36, 38 to 37, 39 to 38, 40 to 39, 41 to 40, 42 to 41, 43 to 42, 44 to 43, 45 to 44, 46 to 45, 47 to 46, 48 to 47, 49 to 48, 50 to 49, 51 to 50, 52 to 51.

I have personally compared in each case the manuscript with the print and have found that out of the 203 corrections 50 are properly chargeable to the printer and 153 are properly chargeable to the authors and as above classified.

BERNHARD C. HESSE, *Secretary.*

March 31, 1913.

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PAPERS IN THE ENGLISH LANGUAGE

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